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Theoretical and experimental study on cyclic 6-methy--2,3,4- tris(hydroxymethyl)pyridin-5-ol acetonides

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Abstract

Methods for the preparation of three cyclic 2,3,4-tris(hydroxymethyl)-6- methylpyridin-5-ol acetonides have been developed by variation of the reaction conditions. The six-membered acetonide turned out to be thermodynamically more stable than the seven-membered acetonide and bis-acetonide. The experimental data were consistent with the results of quantum-chemical calculations. The structure of the isolated compounds was proved by X-ray analysis. © 2010 Pleiades Publishing, Ltd.

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